

inert



Safe post processing of additive manufactured parts
with PowderShield and Argon Management

OPTIONS

- Unidirectional Flow
- Ultrasonic Vibration
- Rotating Tilt Table
- Antechambers
- Oxygen Analyzer
- Moisture Analyzer
- Nitrogen Gas
- Manual Gas Purge
- Automated Gas Purge
- Sievgen 04 Integration
- Oval Glove Ports
- Glove Options
- Vacuum Hose Line
- Polycarbonate Window
- Dry Vacuum Pump
- Powder Storage Kegs
- Other Customizations

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POWDER SHIELD™



Inert's PowderShield is a customizable workstation for post processing of additive manufactured parts. Keeping airborne particulate within PowderShield's controlled atmosphere eliminates dangerous operator health risks, inhalation of and exposure to powders, damage to area electronics, and fire hazards related to the combustibility of reactive powders. This technical overview details just some of the many options that are available for this system — tailored to your application's requirements.

PowderShield's flexible design allows for integration with automated sieving stations, powder hoppers, and other third party equipment to create unique closed-loop post processing systems for additive manufacturing. Engineered with modular connections and subcomponents, PowderShield is easy to clean and maintain for optimal performance and lifespan, and the system can be easily grounded for a safe, anti-static powder handling workspace.

Dimensions (box only) External: 1182mm W x 906mm D x 1950mm H

Internal: 844mm W x 775mm D x 897mm H

Tilt Table: 533mm diameter

Internal Finish: Type 304 stainless steel, #4

External surfaces: RAL 7035

Wall thickness: 0.105" (2.6 mm)

Plumbing: 304 stainless steel electro polished tubing

Filter: 1 x Inlet HEPA

Lighting: Internal LED light

Power: 100-120 or 200-240 VAC 50/60 Hz 20 Amp

Tempered safety glass window 3/8" (9.5 mm) thick.

Gloves: 30 mil high performance butyl (ESD) gloves, 8" Delrin port

THE BENEFITS OF POWDERSHIELD



Safety

Post processing AM parts in PowderShield prevents the inhalation of particles which can cause respiratory problems for those that handle powders. Maintaining low ppm O₂ levels prevents oxidizing micronic powders for safe handling while avoiding combustion or ignition of powders.



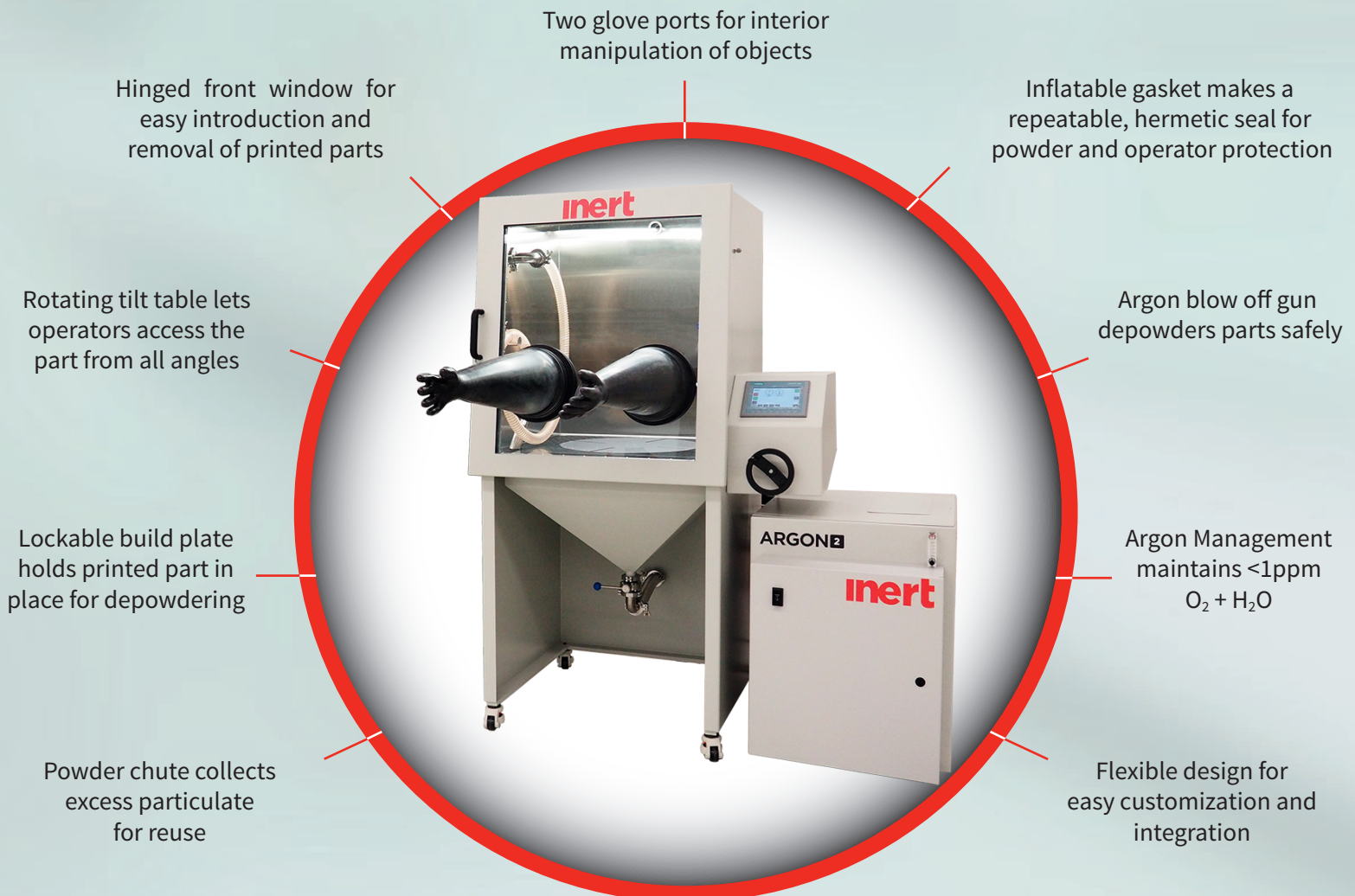
Traceability

Many Q/A processes require that atmospheric conditions be well documented. An Argon Management System offers a simple and effective way to register and record the levels of oxygen and moisture during AM post processing



Savings

Post processing in an inert environment allows excess powders to be reclaimed and reused due to the lack of atmospheric contamination. PowderShield's built-in gravity fed powder collection system funnels powders to sieves or hoppers for characterization, and reuse





POWDER SHIELD™


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